

The 5 E's: A Model for Designing Lessons for Inquiry Planner¹

Logistics Information:

- a. Environmental Education Learning Cycle Example with Social Studies emphasis
- b. A synthesis of *Project WILD*/History sources/*Project Learning Tree*
- c. Iowa Core Essential Concepts
Behavioral Sciences
Understand the process of how humans develop, learn, adapt to their environment, and internalize their culture.
Understand how social status, social groups, social change, and social institutions influence individual and group behaviors.
Understand current social issues to determine how the individual is able to formulate opinions and responds to those issues.
Understand the appropriate research procedures and skills of the behavioral scientist.
- d. Developed April 17th, 2010

Background Information (What do observers need to know about our learners, classroom and school?): Schools will vary

Materials Required:

Wildlife Issues: Community Attitude Survey (Project WILD, p .297)

Green Space (Project Learning Tree: Places We Live, p. 85)

In the Good Old Days (Project Learning Tree, p. 396)

Data: Nature Deficit Disorder proposal, web sites such as Grist.org and WWF.

Book supplement- *Last Child in the Woods* by Richard Louv

A copy of the DSM IV

Time Period: 2 blocks/3 classes depending on extension activities

Name of the Unit: Ecopsychology: How nature impacts our mental state

- I. Plan of the Unit
 - a. Goals of the unit: Students will examine the role of the natural world in our mental states and on our cognitive, affective and psychomotor development/state.
 - b. How this unit related to the curriculum:

Previous Grade/Course	Current Grade/Course	Next Grade/Course
Behavioral Science/ Health	Psychology/Sociology	Advanced Psychology

- c. Lesson Plan: Phases in a 5E Learning Cycle (in no particular order) are Engage, Explore, Explain, Elaborate, and Evaluate.
There may be multiple experiences in each phase.

¹ Adapted from *Teacher to Teacher: Reshaping Instruction Through Lesson Study* (NCREL, 2002)

Phases of the lesson: learning activities and key questions (and time allocation)	Student activities/ anticipated student reactions or responses	Teacher’s response to student reactions/ Things to remember	Evidence of Student Understanding
<p>ENGAGE: Proposed Nature Deficit Disorder... Is it a good call or is it an overreach? What evidence will we need to make an assessment of whether or not NDD may be an actual disorder?</p> <p>EXPLORE: Data on healing and nature, ADD/ADHD and outdoor play, Data on testing breaks and scores in relation to location of the breaks- built/constructed environments vs. natural environments.</p>	<p>Students will come to this unit with different life experiences and viewpoints relating to nature.</p> <p>Operational definition of nature.(interesting variety of just what constitutes nature) Evidence? What is quality research vs. propaganda or psychobabble.</p> <p>Play grounds = built environments.</p> <p>Students can examine the percentage of school grounds that are constructed/black top. Students read <i>Tales of the Forest (Project Learning Tree, p. 399)</i></p> <p>Discuss variety of experiences presented and relate to their own experiences.</p>	<p>Student learning history and family styles will vary. Care must be taken to explore the data without implying negative judgment about previous exposure to the natural world.</p> <p>Reading <i>In the Good Old Days (Project Learning Tree, p. 396)</i>. Students explore a variety of views about the role of the “wilderness” in our society/culture/lives.</p>	<p>Students will be able to defend their position about whether or not Nature Deficit Disorder is a fit in the DSMIV (Diagnostic and Statistical Manual 4) and the 5 axes.</p> <p>Student data- survey/research school day exposure to nature/free time exposure to nature and possible link to behavioral/academic issues.</p>

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<p>EXPLAIN: Brain data/Stress and nature. Lecture on limbic system and frontal lobes.</p> <p>Read research from ecopsychology journal/health news and/or your text books.</p> <p>ELABORATE: Notes/reading on intentional fatigue in built environments/schooling/during multitasking attempts as well as brain based data on our attention spans and our environment.</p> <p>EVALUATE: Student data presented using correct standards for research and feasible outcomes/theory/debriefing.</p>	<p>Students think they can multitask. They can't. They made need actual experimentation to get the point that loud environments are not friendly for critical thinking tasks.</p>	<p>Web links and PowerPoint</p>	<p>Students draw a basic brain map that shows basic structures and highlight those that are affected by our varied environments.</p> <p>Student response on exam. Student development of recess/school grounds plans.</p>

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<p>EXTENSION: Construct a student survey that would allow students to gather data and then correlate responses pertaining to exposure to natural environments and school/social achievement.</p>	<p>Present findings to school administration pertaining to school use of green space.</p> <p>Social scientists study how people behave, interact and experience their social environment. They use specific research processes and tools to address research questions. Studies attempt to provide accurate information rather than to establish what is “right” or “wrong.” Including but not limited to: Align the best research method available to the research question or social issue under investigation. Identify, utilizes and evaluates a variety of sources for quality, reliability and validity. Understand and applies the ethical issues in conducting research with humans and animals. Evaluate the pros and cons of various research strategies.</p> <div data-bbox="611 1414 1056 1485" style="border: 1px solid black; padding: 2px; margin-top: 10px;"> <p>Illustration of Understand the appropriate research procedures</p> </div>	<p>Guide understanding of policy development in the American school system.</p>	

and skills of the behavioral scientist in the ICLE's Rigor and Relevance Framework

Quadrant C
Compare and contrast which research methods would work best based on various scenarios.

Quadrant D
Create and administer a survey to a group, interpret the results, and present findings in an appropriate format.

Quadrant A
Create a chart of the various methods of conducting research in the behavioral sciences.

Quadrant B
Students administer a survey to a group and tally the results.